REMARKS/ARGUMENTS

This amendment is filed in response to the Office Action dated January 20, 2010.

Applicant respectfully request reconsideration of the subject application as amended herein.

I.   STATUS OF THE CLAIMS

In the Action, Claims 1-39 are pending. Claims 1, 22, 35, 37, 38 and 39 have been

amended. No new matter has been entered.

Claims 1-39 were rejected under 35 U.S.C. § 112, second paragraph (hereinafter,

"Section 112, Par. 2") as being indefinite.

Claims 1-7, 9, 13, 14, 21, 28, 35, 38 and 39 were rejected under 35 U.S.C. § 102(b)

(hereinafter "Section 102(b)") as being allegedly anticipated by Yiu (U.S. Pat. No. 6,008,777,

hereinafter "Yiu").

Claim 8 was rejected under 35 U.S.C. § 103(a) (hereinafter "Section 103(a)") as being

allegedly unpatentable over Yiu in view of Official Notice that "the use of USB computer bus

were old and well-known in the art at the time the invention was made".

Claim 10 was rejected under Section 103(a) as being allegedly unpatentable over Yiu

in view of Official Notice that "the use of a general programmable interface were old and

well-known in the art at the time the invention was made for providing programmable

functions".

Claims 11-12 were rejected under Section 103(a) as being allegedly unpatentable over

Yiu in view of Official Notice that "the use of a state machine such as a PLD, PLA or general

programmable interface were old and well-known in the art at the time the invention was made for providing programmable functions".

Claims 15-20, 23-27, 29-34 and 36 were rejected under Section 103(a) as being allegedly unpatentable over Yiu in view of Cypress (CY 7C68013, Cypress Semiconductor Corporation, 6/21/2002, hereinafter "Cypress").

Claims 22 and 37 were rejected under Section 103(a) as being allegedly unpatentable over Yiu in view of Tahara et al. (U.S. Pat. No. 5,894,328, hereinafter "Tahara")

Applicant respectfully traverses the rejections and requests reconsideration for all pending claims in light of the remarks below.

II.   SECTION 112, PAR. 2 REJECTIONS

Claims 1-39 were rejected under Section 112, Par. 2 for being indefinite because "the essential structural cooperative relationship(s) between the so-called 'digital stream transmitter/receiver', 'computer bus interface', and 'data converter' have been omitted, such omission accounting to a gap between the necessary structural connections."

Applicant respectfully requests entry of the amendments to the claims which are believed to overcome the rejections to the claims. In particular, independent claims 1, 35, 38 and 39 have been amended to clarify the limitations to show the structural cooperative relationship amongst the "digital stream transmitter/receiver", "computer bus interface" and "data converter" as being "operatively connected". As apparent throughout the specification, the "data converter" bridges the connection of the bus interface and digital stream transmitter/receiver. As further described in the Abstract and shown in Figs. 3-4, the data

converter 14, 16, 18 is operatively connected with the computer bus interface 12, and further

operatively connected with the digital stream transmitter/receiver 20.

Accordingly, Applicant respectfully requests withdrawal of the rejection of claims 1-

39 under Section 112, Par. 2.

III.   SECTION 102(b) REJECTIONS, YIU

Claims 1-7, 9, 13, 14, 21, 28, 35, 38 and 39 were rejected under Section 102(b) as

being anticipated by Yiu. Independent claims 1, 35, 38 and 39 have been amended in order to

clarify one of the claimed embodiments.   As amended, claims 1, 35, 38 and 39 recite in part,

"wherein during transmitting or receiving of data, the data converter is reconfigurable by the

computer to provide the plurality of types of digitally streamed data and one or more control

signals according to a desired format and protocol for the digital device, without requiring a

presence on the device of an individual module configured for handling each type of the

plurality of types of digitally streamed data received by the digital device." Support for the

amendments can be found in Applicant's figures and specification as published in paragraphs

[0002-0003] discussing the interface unit processing a "plurality of types of digitally streamed

data", overcoming the drawback of individual modules for handling such different types of

digitally streams. Further pars. [0056], [0058] and [0096], particularly describe sending the

digital stream and control signals in the appropriate format and further the nature of the data

converter being reconfigurable according to the desired format for the digital device, "..the

PLD is programmed to provide digitally streamed data in one format and it is desired to sent it

in another format. The PLD may be reprogrammed to provide the streamed data in the new

format or according to a different standard." See Par. [0096], "Because it is software

programmable, the user can change the communication protocol from the PC without there being any changes to the interface unit."

In review of the Yiu reference, there is no teaching found which anticipates each and every claim limitation of amended claims 1, 35, 38 and 39. In particular, claims 1, 35, 38 and 39 recite that "during transmitting or receiving of data, the data converter is reconfigurable by the computer to provide the plurality of types of digitally streamed data and one or more control signals according to a desired format and protocol for the digital device, without requiring a presence on the device of an individual module configured for handling each type of the plurality of types of digitally streamed data received by the digital device". Accordingly, Yiu simply fails to teach such limitations. Yiu at most describes remotely accessing a PC system and transmitting fixed uncompressed analog audio and video signals. However, Yiu fails to show the claimed interface comprising the claimed limitation of the data converter for providing a variability in the types of digital streamed data, and the required control signals allowing for dynamic reconfiguration of the interface to handle the necessary format and communication protocol for a digital device. Therefore, Yiu does not teach or suggest all the required limitations of amended claims, claims 1, 35, 38 and 39 and therefore does not anticipate claims 1, 35, 38 and 39. For at least these reasons, claims 1, 35, 38 and 39 are believed novel and allowable.

Dependent claims 2-34, 36-37 include all the limitations of their base claims 1 or 35 along with additional limitations they each recite. Therefore, the dependent claims are novel and believed allowable for at least the same reasons as amended claims 1, 35, 38 and 39

Accordingly, Applicant respectfully requests withdrawal of the rejection of claims 1-7, 9, 13, 14, 21, 28, 35, 38 and 39 under Section 102(b) over Yiu.

IV.   SECTION 103(a) REJECTIONS

Claim 8, 10, 11-12 have been rejected under Section 103(a) over Yiu in view of

Official Notice. Claims 15-20, 23-27, 29-34 and 36 were rejected under Section 103(a) over

Yiu in view of Cypress. Claims 22 and 37 were rejected under Section 103(a) over Yiu in

view of Tahara.

As discussed above, Applicant has amended claims 1 and 35 to better clarify the terms

of the claims. It is believed that a prima facie case of obviousness is not established as none

of the cited references alone or in combination teach or suggest ALL the claim limitations of

amended claims 1 or 35. Claims 8, 10, 11-12, 15-20, 22-27, 29-34 depend directly or

indirectly upon and include all limitations of independent claim 1, and claims 36 and 37

depend directly or indirectly on claim 35. Since Yiu, Official Notice, Cypress and Tahara fail

to teach all the claimed limitations, claims 8, 10, 11-12, 15-20, 22-27, 29-34, 36 and 37 are

believed patentable.

As mentioned, Claims 1 and 35 have been amended to recite in part, "during

transmitting or receiving of data, the data converter is reconfigurable by the computer to

provide the plurality of types of digitally streamed data and one or more control signals

according to a desired format and protocol for the digital device, without requiring a presence

on the device of an individual module configured for handling each type of the plurality of

types of digitally streamed data received by the digital device."

A. YIU IN VIEW OF OFFICIAL NOTICE

As discussed above, with regarding to claims 8, 10, 11-12, Yiu fails to teach of the

underlying claimed limitations of the base claim 1. Further in combination with Official

notice, not ALL of the claimed limitations of the claims as a whole are taught nor found to be obvious. Although, in general Official notice notes that a USB computer bus, a general programmable interface, and a state machine are old and well-known, the combination of these elements with the underlying claimed limitations of amended claim 1, do not establish a prima facie case of obviousness since not each and every claim limitation is taught.

Moreover, with respect to claim 8, since Yiu teaches of uncompressed analog A/V signals output from a PC's graphics and sound card, it is not seen how there is a suggestion to combine the use of a USB which uses a digital signal standard. Further with respect to claims 10-12, the suggestion and the motivation to combine Yiu with the general programmable interface and state machine is not apparent considering Yiu is not concerned with various external digital devices and thereby not concerned with the dynamic reconfiguration of data conversion as claimed, but rather deal with remotely accessing a PC having fixed input and output signals (audio, video, keyboard, mouse, joystick etc...). Accordingly, as not all the claimed elements of amended claim 1 are taught, disclosed or suggested by Yiu in combination with Official notice, dependent claims 8, 10-12 are believed patentable. Applicant respectfully requests withdrawal of the rejection of claims 8, 10-12 under Section 103(a).

B. YIU IN VIEW OF CYPRESS

With regard to claims 15-20, 23-27, 29-34 and 36, although Cypress is cited to for teaching the dependent claim limitations, it is not shown that Cypress in combination with Yiu, teach of the newly added limitations of claims 1 and 35. Further, Cypress is specifically limited to a USB bus interface and its fixed USB protocol, it does not teach of data

transmitting/receiving aside from the data between the PC through the USB. Cypress has its

own internal data converter for dealing with a USB protocol only.   No further data

transmission/conversion going to/from a "data converter" and an external digital device is

taught by Cypress. The claimed limitations of the dependent claims are not achieved by use of

a USB but are rather required by the logic provided by the separate data converter as claimed.

With regard to claims 30-34, the "serial bus input/output port" is in no manner taught by a

serial bus of a USB that connects with a PC, it is an entirely separate component as claimed

for interfacing with the external digital device.   Accordingly, as not all the claimed elements

of amended claims 1 and 35 are taught, disclosed or suggested by Yiu in combination with

Cypress, dependent claims 15-20, 23-27, 29-34 and 36 are believed patentable. Applicant

respectfully requests withdrawal of the rejection of claims 15-20, 23-27, 29-34 and 36 under

Section 103(a).

        C. YIU IN VIEW OF TAHARA

        With regard to claims 22 and 37, amendment is made to clarify the embodiment of the

invention. As amended claims 22 and 37 refer to the digital stream produced from a

multiplexed data stream is at the "physical signal layer", and is accordingly protocol

independent. See pars. [0074-0076] of the specification, in which the claimed multiplexing at

the physical layer is discussed. Tahara in combination with Yiu, do not teach each and every

claimed limitation of amended claim 22 and 37 as dependent on amended claims 1 and 35.

Accordingly, these claimed are believed patentable for at least the same reasons as their base

claims. Moreover, although Tahara teaches of a particular multiplexing technique, Tahara

teaches of multiplexing data in the protocol layer such as MPEG1 and MPEG2, which fails to

teach of the invention as claimed in amended claims 22 and 37. Since, as not all the claimed elements of amended claims 1 and 35 are taught, disclosed or suggested by Yiu in combination with Tahara, dependent claims 22 and 37 are believed patentable. Applicant respectfully requests withdrawal of the rejection of claims 22 and 37 under Section 103(a).

Although the Official Notice, Cypress or Tahara have been cited against the dependent claims for other elements, the references still fail to provide for the deficiencies of Yiu in providing the underlying claim elements of claims 1 and 35. Therefore, Yiu in view of Official Notice, Cypress and Tahara, do not teach or suggest every element of claims 8, 10, 11-12, 15-20, 22-27, 29-34, 36 and 37. As not all the required limitations of amended claims 1 and 35 are taught by the cited references, there is no showing of a prima facie case of obviousness.

Accordingly, for at least the same reasons as discussed with respect to claims 1 and 35, Applicant respectfully requests withdrawal of the rejection of claims 8, 10, 11-12, 15-20, 22-27, 29-34, 36 and 37 under Section 103(a), and submits by the present amendment, that these claims are allowable over Yiu in view of Official Notice, Cypress and Tahara.

CONCLUSION

Applicant respectfully submits that the amendments to the pending claims and the remarks presented herein successfully traverse the rejections of the claims. Allowance of claims 1-39 is therefore requested. Should the Examiner have any questions regarding the

above remarks, the Examiner is requested to telephone Applicant's representative at the

number listed below.

Respectfully submitted,

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